

Remarks

Reconsideration of this Application is respectfully requested.

Claims 1-18 are pending in this application. Claim 1 is the only independent claim. Claims 1-18 have been rejected. The claim amendments are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103

Independent Claim 1 was rejected under 35 U.S.C. § 103(a) as being obvious over the combination of U.S. Application No. 2001/0008475 to Takagi et al. in view of U.S. Patent No. 6,771,469 to Lindrose. Applicant respectfully traverses this rejection.

Claim 1, as amended, recites that the load beam portion is formed by a member separate from the member forming the load-bent portion, and that the member forming the load beam portion has a reinforcing structure that is symmetrical as viewed from above based on a center longitudinal axis line. Further, Claim 1 recites that said reinforcing structure is located only in a center region in a longitudinal direction from a rearmost portion at a rear region to the dimple.

The Examiner states that "Lindrose shows a load beam **180** (Fig. 3; Col. 6, ll. 13-14) has a reinforcing structure **262** that is symmetrical as viewed from the above base on a center longitudinal axis line, only in a center region in a longitudinal direction from a rearmost portion at the rear region to the dimple." However, as will be explained, the

reinforcing structure disclosed in the Lindrose patent runs for the entire length of the load beam portion, i.e., it is not confined to a center region of the load beam portion.

The load-bent portion of a magnetic head suspension is a portion or a region which generates the load for pressing the magnetic head toward the magnetic disk. The load beam portion is a portion or region which transmits the load generated by the load-bent portion to the magnetic head. The load-bent portion and the load beam portion could be integrally formed by a single member, or could be separately formed by respective members and then connected to each other by welding or the like.

The load-bent portion must be flexible enough to allow bending while the load beam portion must be relatively stiff in order to transmit the force supplied by the load-bent portion to the magnetic head. When the load-bent portion and the load beam portion are integrally formed by a single member, the load beam portion is provided with a reinforcing structure (typically a flange) to increase its stiffness because the load-bent portion and the load beam portion have the same thickness.

Alternatively, when the load-bent portion and the load beam portion are formed by separate members, the load-bent portion and the load beam portion can be of different thickness and stiffness. It is, of course, possible for the member forming the load beam portion to be provided with a reinforcing structure such as a flange in the case where the load-bent portion and the load beam portion are separately formed.

In Lindrose, "[t]he load beam **180** includes a relatively flexible bend region adjacent the distal end **168** of the actuator arm **112** that is typically bent downward toward the surface of the disk **108** to supply a preload force to the slider **118**." (Col. 6, ll. 9-13). In addition, "the rails **262** are used to reinforce the vertical stiffness of the load

beam 180, except in the bend region at the proximal end of the load beam which is bent downward to provide the preload force"(Col. 9, ll. 13-19).

Thus, Lindrose discloses a construction where the load-bent portion and the load beam portion are integrally formed by a single member. Due to this construction, the load beam portion must be reinforced for improved stiffness. To achieve this, the stiffening rails 262 disclosed by Lindrose are located along the entire length of the load beam portion, not merely in a center region. (See Fig. 3 and Col. 9, ll. 13-19). The region where the rails are provided forms the load beam portion, and the proximal-side region without the rails forms the load-bent portion.

Claim 1 of the present invention, as amended, recites that the member forming said load-bent portion is formed by a member separate from a member forming said load beam portion, and that the load beam portion has a reinforcing structure "only in a center region in a longitudinal direction from a rearmost portion at the rear region to said dimple."

Claims 2-18 depend from Claim 1, discussed above, and therefore are patentable for at least the same reasons.

In addition, Claim 2 of the present application recites that the reinforcing structure is provided within a range of $\pm 0.25L$ from a longitudinal center position located at $L/2$ from the rearmost portion. Thus, the reinforcing structures recited in Claim 2 are provided only in the region of the load beam portion where a peak of the bending mode occurs, thereby effectively reducing the vibration in the bending mode while allowing for the greatest possible decrease of mass of the load beam portion. This is demonstrated in paragraphs [0050]-[0052] in the original specification of the present

application. This feature of Claim 2 is not disclosed nor suggested in any cited documents.

Furthermore, with respect to dependent Claims 13-18, the Examiner states that the Takagi patent, in Figs. 1 and 2, discloses that "the rear beam has an angle of inclination to the center longitudinal axis line of the load beam larger than that of the intermediate side beam."

However, Figs. 1 and 2 of the Takagi patent demonstrate that the rear beam has an angle of inclination to the center longitudinal axis line of the load beam substantially the same as that of the intermediate side beam. The difference can be clearly seen when comparing Takagi et al. Figs. 1 and 2 with Fig. 4 of the present invention.

In light of the above mentioned remarks and submitted amended claims, Applicants respectfully submit that the rejection cannot be sustained and should be withdrawn.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Amdt. dated October 19, 2006 - 15 -
Reply to Office Action of July 19, 2006

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Prompt and favorable consideration of this Amendment and Reply is respectfully
requested.

Respectfully submitted,

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